

# UNITED STATED DEPARTMENT OF COMMERCE Patent and Trademark Office

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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO.

09/114.203

07/13/98

MIYANISHI

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EXAMINER

BAUMEISTER.B

ART UNIT PAPER NUMBER

2815

**DATE MAILED:** 

08/09/00

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

## Office Action Summary

Application No. 09/114,203

Applicant(s)

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Miyanishi et al.

Examiner

William Baumeister

Group Art Unit 2815

Responsive to communication(s) filed on	·
☑ This action is FINAL.	
Since this application is in condition for allowance except for in accordance with the practice under <i>Ex parte Quayle</i> , 1935	
A shortened statutory period for response to this action is set to is longer, from the mailing date of this communication. Failure t application to become abandoned. (35 U.S.C. § 133). Extension 37 CFR 1.136(a).	to respond within the period for response will cause the
Disposition of Claims	
	is/are pending in the application.
Of the above, claim(s) 2-11	is/are withdrawn from consideration.
Claim(s)	
Claim(s)	
☐ Claims	
Application Papers	
☐ See the attached Notice of Draftsperson's Patent Drawing	Review, PTO-948.
☐ The drawing(s) filed on is/are objecte	ed to by the Examiner.
☐ The proposed drawing correction, filed on	
☐ The specification is objected to by the Examiner.	
$\hfill\Box$ The oath or declaration is objected to by the Examiner.	
Priority under 35 U.S.C. § 119  Acknowledgement is made of a claim for foreign priority under 35 U.S.C.	under 35 U.S.C. § 119(a)-(d).
🔀 received.	
received in Application No. (Series Code/Serial Number)	
$\Box$ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).	
*Certified copies not received:	
☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).	
Attachment(s)	
Notice of References Cited, PTO-892	
☐ Information Disclosure Statement(s), PTO-1449, Paper No	(s)
☐ Interview Summary, PTO-413	_
□ Notice of Draftsperson's Patent Drawing Review, PTO-948	3
☐ Notice of Informal Patent Application, PTO-152	
SEE OFFICE ACTION ON THE FOLLOWING PAGES	

Application/Control Number: 09/114,203 Page 2

Art Unit: 2815

#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 102

- 1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Shou et al. '859. FIG. 3 depicts, e.g., active region PL1 wherein the left MOS-gate is disposed in an ordinary region and the right MOS-gate extends over a portion having a strangulation region S1. The strangulation region causes the margin length of the right gate to be longer than that of the left gate.
- a. In Applicant's AMENDMENT filed 7/21/2000 (paper #7), Applicant argues that Shou does not anticipate claim 1 because nothing in Shou shows, teaches or suggests that the gate electrode of the second transistor formed in the ordinary region has a margin part as claimed in claim. But rather, that Shou discloses that the gate electrode ends at the end of the common p-well. (REMARKS, pages 4 and 5)
- b. The Office disagrees that claim 1, as written, requires that the gate of the ordinary region have a margin part. This is because the relevant portion of claim 1 recites:
  - "...a length of a margin part of a first gate electrode constructing said first MOS transistor is set to be larger than that of a margin part of a second gate electrode constructing said second MOS transistor."

Page 3

Application/Control Number: 09/114,203

Art Unit: 2815

Thus, under the broadest reasonable interpretation, claim 1 does require that the first gate electrode has a margin part, since this margin is larger than a margin of the second gate. But the claim does not necessarily require that the second gate electrode have a margin greater than zero. Rather, the claim reads on a device having a second gate having a margin of zero, since a zero margin is also less than the margin of the first gate. Thus, absent express claim language requiring that the second gate have a positive margin, claim 1 is indeed anticipated by Shou, regardless of whether any arguments could be made that Shou inherently requires or suggests some nominal positive margin for the second gate.

3. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Jassowski '389.

Newly presented claim 12 is more narrow than originally filed claim 1 in that claim 12 expressly states that the second gate electrode extends to an outside of the active area. Thus, both the first and second gates must possess some positive margin.

See FIG 2 of Jassowski which depicts various polysilicon (gate) layers extending over N and P diffusion (active) regions.<sup>1</sup> Note particularly the two gates that have been emphasized for

<sup>&</sup>lt;sup>1</sup>During prosecution of the Jassowski application, drawing amendments, including labels and margin codes, were entered into the record. But these amended drawings were not printed. For Applicant's convenience, the Office is providing herewith a copy of these amended drawings. As the Jassowski applications has issued as a patent, the file wrapper is, of course, available for public inspection, should Applicant have any questions. For easier tracking, this file wrapper will be in the present Examiner's possession during prosecution of the present application.

Application/Control Number: 09/114,203 Page 4

Art Unit: 2815

Applicant's convenience. These gates and the n-diffusion region anticipate all of the limitations of claim 12.

### Response to Arguments

- 4. Applicant's arguments filed 7/21/2000 have been fully considered but they are not persuasive for the reasons set forth hereinabove.
- 5. As claims 1 and 12 have been rejected, the issue of rejoinder of any other claims is moot.

#### Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Application/Control Number: 09/114,203

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Art Unit: 2815

The prior art made of record and not relied upon is considered pertinent to applicant's 7.

disclosure.

Tamura '811 a.

Runaldue et al. '560

Iwasaki '244 c.

INFORMATION ON HOW TO CONTACT THE USPTO

8. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to the examiner, B. William Baumeister, whose telephone number is (703)

306-9165. The examiner can normally be reached Monday through Friday, 8:30 a.m. to 5:00 p.m.

Any inquiry of a general nature or relating to the status of this application or proceeding should be

directed to the Group receptionist whose telephone number is (703) 308-0956.

B. William Baumeister

August 4, 2000

Page 5